

205.5 - Radiopharmaceuticals (solution and gaseous forms)

These SRMs are intended for the calibration of radioactivity-measuring instruments. They are calibrated in terms of activity per gram of solution (except SRM 4415, which is calibrated in terms of activity). Each SRM is contained in a 5 mL flame-sealed glass ampoule and, except for SRM 4415, consists of the radionuclide dissolved in an aqueous solution (usually acidic). These SRMs are produced in collaboration with the Nuclear Energy Institute and, because of the short half lives, are available only at specific times. For the current production schedule, contact the Radioactivity Group. [Click here](#) for more information.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

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SRM	Description	Unit of Issue	Half Life (days)	Activity per gram(MBq · g ⁻¹)
4401L	Iodine-131 Solution	5 mL	8.0	25
4401H	Iodine-131 Solution	5 mL	8.0	1 GBq/g
4404I	Thallium-201 Solution	5 mL	3.0	7.509
4404h	Thallium-201 Solution	5 mL	3.0	80.35
4407L	Iodine-125 Solution	5 mL	59.4	3.078
4407H	Iodine-125 Solution	5 mL	59.4	152.9
4410h	Technetium-99m Solution	5 mL	0.3	1.428 GBq/g
4412L	Molybdenum-99 Solution	5 mL	2.74	26.03
4412H	Molybdenum-99 Solution	5 mL	2.74	889.6
4415H	Xenon-133 Gas	Ampoule	5.243	11.90 GBq/ g
4416I	Gallium-67 Solution	5 mL	3.3	7.863
4416h	Gallium-67 Solution	5 mL	3.3	89.16
4417I	Indium-111 Solution	5 mL	2.8	3.763
4417h	Indium-111 Solution	5 mL	2.8	61.15
4425I	Samarium-153 Solution	5 mL	1.9	4
4426Ia	Strontium-89 Solution	5 mL		
4427L	Yttrium-90 Solution Radioactivity	5 mL	64.0 hrs	5.115
4427H	Yttrium-90 Solution	5 mL	64.0 hrs	54.40

*NIST requires [license certification](#) of purchaser before SRM can be shipped.